In the Claims

This listing of claims will replace all prior versions, and listings, of claims.

Listing of Claims

1-38. (Canceled)

39. (Currently Amended) An electret composite, comprising:

a porous substrate; and

an electret coated on the substrate along the porous profile thereof, the electret having a first polymer copolymerizing from monomers having vinylidene fluoride (VdF) as a first monomer, and hexafluoropropylene (HFP), chlorotrifluoro ethylene (CTFE), tetrafluoro ethylene (TFE), or combinations thereof as a second monomer, and a third monomer comprising cyclohexyl vinyl ether, 4-hydroxybutyl vinyl ether, ethyl vinyl ether, methyl methacrylate, butyl acrylate, 4-hydroxyl ethyl methacrylamide, glyceryl methacrylamide, acrolein, butyl vinyl ether, propionic vinyl ether, σ, α, α-dimethyl propionic vinyl ether, or combinations thereof.

40. (Original) The composite as claimed in claim 39, wherein the substrate comprises a nonwoven or woven fabric of polyethylene terephthalate, polyethylene, polypropylene, polyetrafluoroethylene, polystyrene, or polyvinyl chloride.

- 41. (Original) The composite as claimed in claim 39, wherein the content of VdF in the first polymer is between 10 mole% and 80 mole%.
- 42. (Original) The composite as claimed in claim 39, wherein the content of HFP in the first polymer is approximately 30 mole% or less.
- 43. (Original) The composite as claimed in claim 39, wherein the content of CTFE in the first polymer is approximately 30 mole% or less.
- 44. (Original) The composite as claimed in claim 39, wherein the content of TFE in the first polymer is approximately 40 mole% or less.
 - 45. (Canceled)
- 46. (Currently Amended) The composite as claimed in claim [[45]] 39, wherein the content of the third monomer in the first polymer is approximately 30 mole% or less.
- 47. (Original) The composite as claimed in claim 39, wherein the content of fluorine element in the first polymer is between 60 and 76 wt%.
- 48. (Original) The composite as claimed in claim 39, wherein the electret further comprises a second polymer mixed with the first polymer, the second polymer comprising

polymethacrylate, polyvinyl acetate, polycarbonate, polyurethane, polyester, polyimide, poly(butylene terephthalate), or polystyrene.

- 49. (Previously Presented) The composite as claimed in claim 48, wherein the content of second polymer in the electret is approximately 60 wt% or less.
- 50. (Original) The composite as claimed in claim 39, wherein the substrate is coated by dissolving the electret in acetone, methyl ethyl ketone, methyl isobutyl ketone, 1-methyl-2-pyrrolidone, dimethyl sulfoxide, dimethylformamide, or combinations thereof to form a solution, immersing the substrate in the solution, taking the substrate from the solution, and evaporating the solution therefrom.
- 51. (Original) The composite as claimed in claim 39, wherein a initial surface potential of the electret is between 2820 and 2950V when polarized by corona discharge under potential difference approximately 18KV.
- 52. (Original) The composite as claimed in claim 51, wherein a surface potential of the electret is 50 to 55% of the initial surface potential at room temperature for approximately 10 days from polarization.
- 53. (Previously Presented) The composite as claimed in claim 39, wherein the electret is coated on the inner walls of the pores of the porous substrate.